

Abstract

The present invention provides compositions and methods for the detection of the presence, absence, or quantity of a segmented negative strand RNA virus such as an influenza virus. A genetically engineered vertebrate cell comprising an artificial segment comprising a 5' UTR and a 3' UTR of a segmented negative strand RNA virus and an open reading frame of a reporter gene, preferably in an anti-sense orientation, is contacted with a biological specimen suspected of comprising a segmented negative strand virus. Infection of the cell with a segmented negative strand RNA virus results in expression of a polypeptide encoded by the reporter gene. A genetically engineered cell of the invention can also comprise a recombinant DNA encoding the artificial segment. The recombinant DNA can comprise a promoter for RNA Polymerase I for directing transcription of the artificial segment.